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EXAMINER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/693,037

Applicant(s)

JAIN ET AL.

Examiner

Venkatesh Haliyur

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-60 is pending in the application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention in claims 57-60 is directed to non-statutory subject matter.

In these claims, lines 1-2, the limitation is recited as "A program storage device readable by a machine, tangibly embodying a program of instructions by the machine to perform a" which does not comply with the 101 interim guidelines set forth therein (please refer to pages 52-53 of the 101 interim guidelines). It is well established that a computer program product or a software product or computer readable code, per se is not a physical "thing" and does not define any structural and functional interrelationship between the computer program code and the rest of the computer, which permits the computer program's functionality to be realized. In order for a computer program or software instructions to be statutory it must be embodied (encoded) in a computer-readable medium capable of being executed by a computer.

Thus, claims 57-60 are directed to non-statutory subject matter since the patent protection sought by the claimed invention is for the computer program in the abstract. Appropriate corrections are required for the claim without introducing any new matter to the disclosure.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In these claims the limitations "value-to-type/length field", "value-to-priority" appears to be values that are placed in type/length and priority Mask fields (see applicant's Fig 1). However, from the claim language as recited in these claims fails to particularly point out and distinctly claim the values that are to be considered for these fields. Hence appropriate corrections are required to these claims where applicable.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-15, 32, 34-48, are rejected under 35 U.S.C. 102(e) as being anticipated by Kadambi et al [US Pat: 7,212,534].

Regarding claim 1,34 Kadambi et al in the invention of "Flow Based Congestion Control" disclosed a method for generating a frame indicating that traffic flow should be

paused to a network device, the traffic flow having varying priority levels (**Figs 10 to 17**), the method comprising: placing a value signifying that the frame indicates that traffic flow should be paused in a type/length field in the frame (**LENGTH/TYPE Field of Fig 17**); placing a value signifying that traffic flow should be paused or not paused according to its priority level in an opcode field in the frame (**col 15, lines 11-59**); creating a priority mask field in the frame (**OPCODE 1_3 field of Fig 16**); and placing a value signifying which priority levels should be paused in said priority mask field in the frame (**PRIORITY_BITMAP field of Fig 16, col 14, lines 41-46**).

Regarding claim 2,35, Kadambi et al disclosed wherein said placing a value signifying that traffic flow should be paused or not paused according to its priority level in an opcode field in the frame includes placing a value signifying that traffic flow should be paused or not paused according to its priority level (**inhibit or allow transmission of frames**), and that the pausing will be for time indicated by a pause time field in the frame without regard for said priority level (**control parameter field of Fig 16**), in an opcode field in the frame if it is desired to use the same pause time for each priority level (**col 15, lines 19-35**).

Regarding claim 3, 36, Kadambi et al disclosed wherein said placing a value signifying that traffic flow should be paused or not paused according to its priority level in an opcode field in the frame includes placing a value signifying that traffic flow should be paused or not paused according to its priority level (**inhibit or allow transmission of frames, col 15, lines 19-35**), and that the pausing will be for times corresponding to

each priority level indicated by a pause time field, in an opcode field in the frame if it is not desired to use the same pause time for each priority level (**col 3, lines 41-52**).

Regarding claim 4, 36 Kadambi et al disclosed placing a separate value for each possible priority level in said pause time field, said separate value indicating an independent pause time for each corresponding priority level (**Figs 14/15, col 13, lines 8-30**).

Regarding claims 5-6, 38-39 wherein said pause time field is equal in size to the pause time field in a standard PAUSE frame multiplied by the number of possible priority levels and wherein the frame is a PAUSE frame (**col 9, lines 32-39**).

Regarding claim 7, 40, Kadambi et al disclosed wherein said value signifying that the frame indicates that traffic flow should be paused is identical to values used to indicate standard PAUSE frames (**col 15, lines 11-20**).

Regarding claim 8, 41 Kadambi et al disclosed wherein said value signifying that traffic flow should be paused or not paused according to its priority level is a value not used by standard PAUSE frames in said opcode field (**col 15, lines 60-67**).

Regarding claim 9, 42, A method for generating a frame indicating that traffic flow should be paused to a network device, the traffic flow having varying priority levels (**Figs 10 to 17**), the method comprising: placing a value signifying that traffic flow should be paused or not paused according to its priority level in an type/length field in the frame (**LENGTH/TYPE Field of Fig 17, col 15, lines 11-59**); creating a priority mask field in the frame; and placing a value signifying which priority levels should be

paused in said priority mask field in the frame (**PRIORITY_BITMAP** field of Fig 16, col 14, lines 41-46).

Regarding claim 10, 43, Kadambi et al disclosed placing a value signifying that the pausing will be for time indicated by a pause time field in the frame without regard for said priority level in an opcode field in the frame if it is desired to use the same pause time for each priority (**col 15, lines 19-35**).

Regarding claim 11, 44, Kadambi et al disclosed placing a value signifying that the pausing will be for times corresponding to each priority level indicated by a pause time field in an opcode field in the frame if it is desired to use the same pause time for each priority (**col 3, lines 41-52**).

Regarding claim 12, 45, Kadambi et al disclosed placing a separate value for each possible priority level in said pause time field, said separate value indicating an independent pause time for each corresponding priority level (**Figs 14/15, col 13, lines 8-30**).

Regarding claim 13, 46, Kadambi et al disclosed wherein said pause time field is equal in size to the pause time field in a standard PAUSE frame multiplied by the number of possible priorities (**col 15, lines 11-20**).

Regarding claims 14-15, 47-48, Kadambi et al disclosed wherein the frame is a PAUSE frame and said value signifying that traffic flow should be paused or not paused according to its priority level is a value not used by standard PAUSE frames in said type/length field (**LENGTH/TYPE** Field of Fig 17, col 9, lines 32-39).

Regarding claim 32, Kadambi et al disclosed an apparatus (**Figs 13-17**) for handling a frame in a network with traffic flow having varying priority levels, the method comprising: a type/length field value examiner (**Fig 17**); an opcode field value examiner coupled to said type/length field value examiner (**OPCODE1_3, Fig 16**); and a priority level traffic flow pauser coupled to said opcode field value examiner (**PRIORITY_BITMAP field, Fig 16, col 12, lines 15-30, col 15, lines 11-44**).

7. Claims 16-31, 33, 49-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Erimli et al [US Pat: 6,405,258].

Regarding claim 16,49,59, Erimli et al in the invention of "Method and Apparatus for Controlling The Flow of Data Frames Through a Network Switch on a Port-by-Port Basis" disclosed a method for handling a frame in a network with traffic flow having varying priority levels (**Figs 5A/B**), the method comprising: examining a value in a type/length field in the frame to determine if it signifies that the frame indicates that traffic flow should be paused to a network device (**5B, col 12, lines 57-67, col 13, lines 1-9**); examining a value in an opcode field in the frame to determine if it signifies that traffic flow should be paused or not paused according to its priority level, if said value in said type/length field signified that the frame indicates that traffic flow should be paused to a network device (**5B, col 13, lines 10-29**); and pausing traffic flow with priority levels corresponding to levels signified by a value in a priority mask field in the frame if said value in said opcode field signified that traffic flow should be paused or not paused according to its priority level and if said value in said type/length field signified that the

frame indicates that traffic flow should be paused to a network device (**col 13, lines 30-39**).

Regarding claim 17,50, Erimli et al disclosed wherein said examining a value in an opcode field further comprises examining a value in said opcode field to determine if it also signifies that the pausing will be for time indicate by a pause time field in the frame without regard to priority level (**5B, col 13, lines 10-29**) and said pausing traffic flow further comprises pausing traffic flow with priority levels corresponding to levels signified by a value in a priority mask field in the frame for a time period indicated by the pause time field in the frame without regard to priority level if said opcode field signifies that the pausing will be for time indicate by a pause time field in the frame without regard to priority level (**col 13, lines 30-39**).

Regarding claim 18,51, Erimli et al disclosed wherein said examining a value in an opcode field further comprises examining a value in said opcode field to determine if it also signifies that the pausing will be for times corresponding to each priority level indicated by a pause time (**col 12, lines 23-37**) and said pausing traffic flow further comprises pausing traffic flow with priority levels corresponding to levels signified by a value in a priority mask field in the frame for time periods indicated by a times corresponding to each priority level in a pause time field in the frame if said opcode field signifies that the pausing will be for times corresponding to each priority level indicated by a pause time (**5B, col 13, lines 10-39**).

Regarding claim 19, 52, Erimli et al disclosed wherein said times are a separate value for each possible priority level indicating an independent pause time for each corresponding priority level (**col 12, lines 33-39**).

Regarding claim 20,53,60 Erimli et al disclosed a method for handling a frame in a network with traffic flow having varying priority levels (**Figs 5A/B**), the method comprising: examining a value in a type/length field in the frame to determine if it signifies that the frame indicates that traffic flow should be paused to a network device (**5B, col 12, lines 57-67, col 13, lines 1-9**) and if it signifies that traffic flow should be paused or not paused according to its priority level (**col 13, lines 30-39**); and pausing traffic flow with priority levels corresponding to levels signified by a value in a priority mask field in the frame if said value in said type/length field signified that traffic flow should be paused to a network device and that traffic flow should be paused or not paused according to its priority level (**Figs 5A/B, col 12, lines 23-37, col 13, lines 10-29**).

Regarding claim 21,54, Erimli et al disclosed examining a value in an opcode field in the frame to determine if it signifies that the pausing will be for time indicate by a pause time field in the frame without regard to priority level (**5B, col 13, lines 30-39**) ; and wherein said pausing traffic flow further comprises pausing traffic flow with priority levels corresponding to levels signified by a value in a priority mask field in the frame for a time period indicated by the pause time field in the frame without regard to priority level if said value in said opcode field signifies that the pausing will be for time indicate by a pause time field in the frame without regard to priority level (**col 13, lines 10-29**).

Regarding claim 22,55, Erimli et al disclosed examining a value in said type/length field to determine if it also signifies that the pausing will be for times corresponding to each priority level indicated by a pause time (**col 12, lines 23-37**); and wherein said pausing traffic flow further comprises pausing traffic flow with priority levels corresponding to levels signified by a value in a priority mask field in the frame for time periods indicated by a times corresponding to each priority level in a pause time field in the frame if said type/length field signifies that the pausing will be for times corresponding to each priority level indicated by a pause time (**col 13, lines 10-29**).

Regarding claim 23, 56, Erimli et al disclosed wherein said times are a separate value for each possible priority level indicating an independent pause time for each corresponding priority level (**col 12, lines 33-37**).

Regarding claim 24,57, Erimli et al disclosed an apparatus (**Figs 4,5A/B**) for generating a frame indicating that traffic flow should be paused to a network device, the traffic flow having varying priority levels (**col 12, lines 57-61**), the apparatus comprising: a pause traffic flow value-to-type/length field placer (**5B, col 12, lines 57-64**); a priority level based pause traffic flow value-to-opcode field placer coupled to said pause traffic flow value-to-type/length field placer (**5B, col 13, lines 10-39**); a priority mask field creator coupled to said priority level based pause traffic flow value-to-opcode field placer (**col 13, lines 1-9**); and a paused priority level value-to-priority mask field placer coupled to said priority mask field creator (**registers, col 12, lines 12-56**).

Regarding claim 25, Erimli et al disclosed wherein said priority level based pause traffic flow value-to-opcode field placer includes a pause-time without regard for priority level value-to-op code field placer (**col 12, lines 33-37**).

Regarding claim 26, Erimli et al disclosed wherein said priority level based pause traffic flow value-to-opcode field placer includes a pause times corresponding to priority level value-to-opcode field placer (**col 13, lines 10-29**).

Regarding claim 27, Erimli et al disclosed a priority level separate value-to-pause time field placer coupled to said priority level based pause traffic flow value-to-opcode field placer (**col 13, lines 110-15-29**).

Regarding claim 28,58, Erimli et al disclosed an apparatus (**Figs 4,5A/B**) for generating a frame indicating that traffic flow should be paused to a network device, the traffic flow having varying priority levels (**col 12, lines 57-61**), the apparatus comprising: a priority level based pause traffic flow value-to-type/length field placer (**col 13, lines 10-39**); a priority mask field creator coupled to said priority level based pause traffic flow value- to-type/length field placer; and a paused priority level value-to-priority mask field placer coupled to said priority mask field creator (**Fig 5A, col 12, lines 23-37**).

Regarding claim 29-30, Erimli et al disclosed a pause time without regard for priority level value-to-opcode field placer coupled to said priority level based pause traffic flow value-to-type/length field placer (**col 13, lines 10-15**) and a pause times corresponding to priority level value-to-opcode field placer coupled to said priority level based pause traffic flow value-to-type/length field placer (**col 13, lines 16-39**).

Regarding claim 31, Erimli et al disclosed a priority level separate value-to-pause time field placer coupled to said pause times corresponding to priority level value-to-opcode field placer (**col 12, lines 15-22**).

Regarding claim 33, Kadambi et al disclosed an apparatus (**Fig 6**) for handling a frame in a network with traffic flow having varying priority levels, the method comprising: a type/length field value examiner (**col 14, lines 13-15**); a priority level traffic flow pauser (**col 14, lines 10-12**) coupled to said type/length field value examiner (**col 14, lines 23-32**).

Conclusion

8. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

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1/18/07

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